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June 14, 2017

LFC INVESTMENT REPORT FOR THE QUARTER ENDING MARCH 31, 2017

This report details the comparative investment performance of the three investment agencies: the Educational Retirement Board (ERB), the Public Employees Retirement Association (PERA), and the State Investment Council (SIC) which manages the land grant permanent fund (LGPF) and the severance tax permanent fund (STPF). This report derives agency performance and market environment information from the investment performance reports submitted by PERA, ERB, and SIC for the quarter ending March 31, 2017. Information from the Wilshire Trust Universe Comparison Service (TUCS) report is also included.

INVESTMENT PERFORMANCE HIGHLIGHTS

- The markets were relatively strong for the quarter ending March 31, 2017. In the last year, the aggregate value of the state's combined investment holdings for the pension and permanent funds grew by over \$3 billion, or 7.2 percent, to end the quarter at \$47.4 billion. ERB and PERA's fund balances grew 6.2 percent and 5.8 percent, respectively, and the aggregate value of the permanent funds managed by SIC grew 8.7 percent.
- This quarter, PERA, ERB and SIC's one-year and five-year returns all exceeded their long-term policy targets.
- ERB's one-year and three-year returns performed particularly well this quarter, based on percentile rankings in the Wilshire Trust Universe Comparison Service (TUCS) peer universe for public funds greater than \$1 billion. ERB ranked well above the 50th percentile for one- and three-year periods and was the only fund to perform at the median for the ten-year period. While LGPF was the only fund to perform above the median for the quarter, both permanent funds ranked below the 50th percentile for all other periods reported. PERA ranked below the 50th percentile for all periods reported.

MARKET ENVIRONMENT

The U.S. market rallied in the first quarter of 2017, with the Wilshire 5000 setting 13 record highs for the year. The stock market has experienced six straight quarterly gains, with large capitalization stocks outperforming smaller shares. Real GDP growth slowed but was stable at 2.1 percent, with consumer and business spending, along with expanding inventories, all contributing to growth. The Federal Reserve increased the Fed-funds rate in its March meeting

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by 0.25 percent, and the 10-year Treasury finished at 2.4 percent. Consumer prices accelerated this quarter with the Consumer Price Index up 0.95 percent.

Market Environment as of March 31, 2017

Index Returns (%)	Quarter	1 Year	5 Years	10 Years
S&P 500	6.07	17.17	13.30	7.51
Wilshire 5000	5.61	18.35	13.22	7.61
Dow Jones Industrial	5.19	19.91	12.15	8.11
Citigroup Broad (BMI)	0.85	0.48	2.34	4.36
MSCI EAFE (Net)	7.24	11.67	5.83	1.05
Barclays Govt/Credit	0.96	0.54	2.46	4.34

The table above provides relevant performance benchmarks. Standard & Poor's 500 (S&P 500) and the Wilshire 5000 are seen as leading indicators of the U.S. equities market and are a common benchmark for the U.S. stock market. Based on these indicators, stock market returns were around 6 percent this quarter and about 17 percent to 18 percent for the year ending March 31, 2017. The Dow Jones Industrial Average is a price-weighted average of 30 significant stocks traded on the New York Stock Exchange and NASDAQ, and it includes companies such as General Electric, Exxon Mobil, and Microsoft. The Citigroup Broad Market Index (BMI) Global and the Morgan Stanley Capital International (MSCI) EAFE Index both provide a broad measure of the international equities market. The Barclays Capital U.S. Government/Credit Bond Index measures the performance of U.S. dollar denominated U.S. Treasuries, government-related and investment grade U.S. corporate securities that have a remaining maturity of greater than one-year.

PERFORMANCE VS. INTERNAL BENCHMARKS

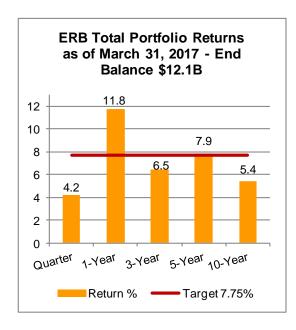
Investment performance is often best considered in terms of full market cycles, which can be defined as a period of full bull-bear-bull periods generally lasting 4 to 5 years. Due to the longer-term duration of a full market cycle, short-term performance (e.g. quarterly or one-year) is often not fully indicative of a fund's overall performance, as the focus should generally be on longer-term returns.

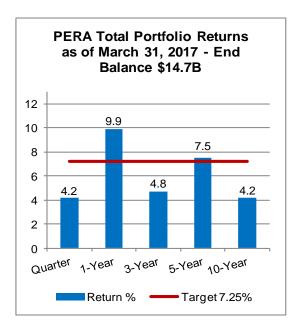
Quarterly returns on the state's investment funds included PERA's investment portfolio at 4.2 percent, ERB at 4.2 percent, LGPF at 4.3 percent, and STPF at 4.0 percent. Returns for both the permanent and pension funds exceeded their interim policy benchmarks for the quarter. Each agency met or exceeded their five-year interim return targets and their long-term targets, which are 7.25 percent (PERA), 7.75 percent (ERB), 7 percent (LGPF) and 6.75 percent (STPF).

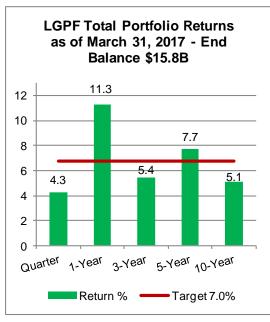
¹ Generally, full market cycles are a peak-to-peak period typically containing a price decline of at least 20 percent over at least a two-month period from the previous market peak, followed by a rebound that establishes a new, higher peak.

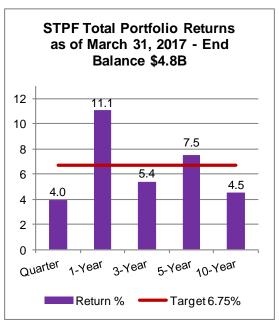
Returns as of March 31, 2017 (Net of Fees)

	PE	<u>ERA</u>	<u>ERB</u>		<u>LGPF</u>		STPF	
Returns (%)	Fund	Policy Index	Fund	Policy Index	Fund	Policy Index	Fund	Policy Index
Quarter	4.2	4.1	4.2	4.1	4.3	3.9	4.0	3.9
1-Year	9.9	11.3	11.8	11.3	11.3	10.1	11.1	10.2
3-Year	4.8	5.5	6.5	5.7	5.4	5.7	5.4	5.7
5-Year	7.5	7.4	7.9	7.1	7.7	7.6	7.5	7.6
10-Year	4.2	5.1	5.4	4.6	5.1	4.6	4.5	4.6









FUND ASSET VALUES

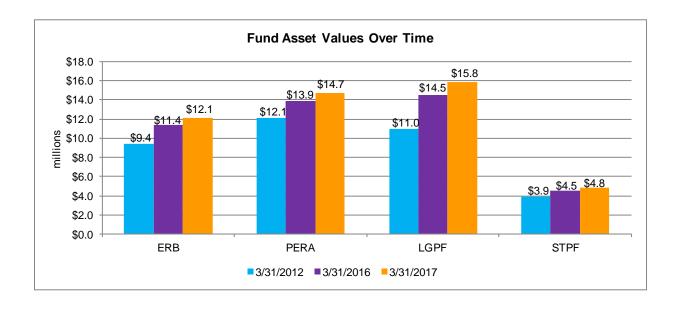
Fund balances have grown over the year, as shown in the table below. All amounts displayed below are shown net-of-fees. The land grant permanent fund, which is the largest of the four funds, also experienced the most growth, adding \$1,348.1 million, or 9.3 percent, to the fund balance over the course of the year. Each of the funds have shown significant growth in the last five years, with LGPF growing 44.3 percent, and ERB, PERA, and STPF growing 21.4 percent, 28.2 percent, and 24.4 percent, respectively.

Current Assert Values* (millions)
For One-Year Period Ending March 31, 2017

Current Asset Value	<u>ERB</u> \$12,076.8	<u>PERA</u> \$14,668.1	<u>LGPF</u> \$15,809.7	<u>STPF</u> \$4,826.3	TOTAL \$47,380.9
Annual Change					
Ending Asset Value (3/31/2016)	\$11,367.0	\$13,857.9	\$14,461.5	\$4,522.8	\$44,209.2
Value Change – Year Over Year	\$709.8	\$810.3	\$1,348.1	\$303.5	\$3,171.7
% Change – Year Over Year	6.2%	5.8%	9.3%	6.7%	7.2%

^{*}Net of Fees

Notably, PERA and ERB operate under a dual mandate: the first is to generate income to pay current retiree benefits, and the second is to grow the principal of the fund to pay retiree benefits into the future. As pension funds, PERA and ERB's fund values reflect benefit payouts, which must be made regardless of the amount of contributions received. Distributions from the permanent funds are based on a formula using revenues and contributions. Generally, due to the differences in liabilities, the permanent funds will tend to have a larger percent change in fund asset values than the pension funds.



ACTUAL VS. TARGET ASSET ALLOCATIONS

The target asset allocations shown below represent the investment funds' portfolio structure, detailing how investments are made. Each of the investment agencies focus on a diversified portfolio, spreading out investments across a variety of asset classes. The table shows the current actual asset allocation for the period ending March 31, 2017, compared with the agencies' policy targets.

Fund Asset	Allocation	Detail,	Quarter	Ending	March	31,	2017

	EF	RB	PERA		LGPF		STPF	
	Actual	Target	Actual	Target	Actual	Target	Actual	Target
US Equity	19.4%	20.0%	9.2%	-	29%	26%	27%	26%
International Equity	14.7%	15.0%	8.2%	-	16%	18%	18%	18%
Global Equity*	-	-	26.4%	32.6%	-	-	-	-
Fixed Income	29.3%	28.0%	31.4%	33.1%	22%	23%	20%	22%
Total Alternatives	34.5%	36.0%	22.1%	33.9%	32%	32%	35%	33%
Private Equity	11.1%	11.0%	5.9%	8.7%	9%	9%	11%	10%
Real Estate/Real Assets	13.2%	15.0%	11.0%	19.0%	19%	18%	18%	18%
Absolute Return	0.0%	0.0%	5.2%	6.2%	4%	5%	5%	5%
ETI**	-	-	-	-	-	-	1%	0%
Global Asset Allocation	5.0%	5.0%	-	-	-	-	-	-
Risk Parity	5.2%	5.0%	-	-	-	-	-	-
Cash Equivalents	2.0%	1.0%	2.7%	0.4%	1%	1%	1%	1%
Total Fund %	100%	100%	100%	100%	100%	100%	100%	100%

^{*}Unlike the other investment funds, PERA's global equity asset class includes domestic and international public securities, global low volatility equity, hedged equity, and private equity.

ASSET CLASS PERFORMANCE

U.S. equities experienced gains this quarter (returns of 6.7 percent for the quarter and 17.2 percent for the year, according to S&P 500), and it was the best source of return for LGPF, earning just under 17.6 percent net of fees in the last year. Similarly, U.S. equities investments from the ERB portfolio returned 17.3 percent for the year, and PERA's domestic equities investments returned 17.7 percent.

ERB's outperforming investments in the last year are its real assets, global asset allocation/risk parity composite, and private real estate, exceeding the benchmark returns by 4.6 percent, 4.0 percent, and 3.6 percent, respectively. While ERB's U.S. small/mid cap allocation posted the largest gains this past year, returning 18.7 percent, it has underperformed its target for the year by 2.8 percent. The ERB portfolio's non-U.S. emerging markets equity composite underperformed for the year, returning 2.1 percent below target.

SIC's real return composite markedly outperformed its target in the last year, exceeding the benchmark by 10.3 percent. However, SIC's private equity portfolio continued to perform below par during the last year, missing its benchmark by 2 percent.

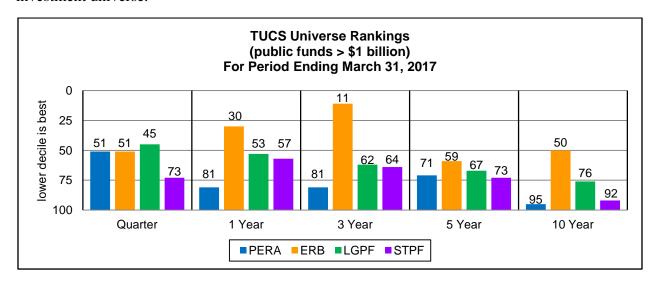
^{**}Economically targeted investments

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PERA's risk reduction and mitigation composite was its only asset class bucket to outperform its policy index, exceeding it by 0.6 percent. The portfolio's credit oriented fixed income composite and its real assets composite have both underperformed fort the one-year period, returning 4.02 percent and 3.93 percent below internal targets, respectively.

PERFORMANCE RELATIVE TO PEERS

The Wilshire Trust Universe Comparison Service (TUCS) benchmark service evaluates the performance and allocation of institutional investment assets. The service evaluates New Mexico's investment agencies alongside approximately 50 public funds with more than \$1 billion in assets. The following figure shows gross-of-fees total return rankings for the agencies' large funds for the quarter, one-, three-, five-, and ten-year periods. A lower number (1 is best) denotes better performance when compared to other public funds within a comparable investment universe.



Only LGPF performed above the median for the quarter; however, the permanent funds both ranked below the 50th percentile for all other periods reported. For the third quarter in a row, ERB's portfolio outperformed the other New Mexico funds for the one- and three-year periods, ranking at the 30th and 11th percentiles respectively. Only ERB's portfolio performed at the median for the 10-year period. Each of the funds performed below the median for the five-year period, and the PERA portfolio ranked below the 50th percentile for all periods reported.

While a useful comparison, it is noted these rankings represent an imperfect measure. Rankings are based on self-reported data and the funds compared within the universe operate under different missions and investment goals. For example, in periods where stock markets are performing exceptionally well, funds that rely on a more diversified and stable approach can lag behind their peers in terms of absolute returns during those periods, even if the approach delivers solid returns relative to return targets.

RISK PROFILES

Risk is an inherent component of investing in financial markets. As risk of an investment fund is a function of the strategic asset allocation, it is prudent to keep the risk within tolerant levels to achieve the overall goals of the plan. This report utilizes a few key measures to evaluate the

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impact that risk plays in an investment portfolio. The table below reports funds' standard deviation and Sharpe Ratio for the five-year period ending March 31, 2017. This report uses the five-year period as a proxy for the portfolios' risk profiles over the course of a full market cycle.

Risk Metrics*, Five Years Ending 03/31/17

	ERB	PERA	LGPF	STPF
Standard deviation	4.99	6.43	5.56	5.56
Sharpe Ratio	1.55	1.1	1.37	1.34
Beta	0.91	1.1	1.0	0.99

^{*}Net of fees

Standard deviation measures the fund's expected variability (deviation) of returns from the mean return. Investments that are more volatile generate a higher standard deviation. Of the four funds, PERA demonstrated the highest standard deviation, indicating higher volatility relative to the other funds; however, the figure is not markedly different from the permanent funds. PERA is in the process of transitioning its portfolio to new policy targets. During the transition period, the PERA portfolio has shown greater volatility than its policy index, which is more diversified.

The Sharpe Ratio measures the risk-adjusted performance of a portfolio. The higher the number, the higher the return-to-risk level.² Typically, a good ratio is 1 or better, a very good ratio is 2 or better, and an excellent ratio is 3 or better. Each of the funds had a "good" Sharpe Ratio for the five-year period (between 1 and 2).

Beta represents the volatility of the portfolio versus the market.³ The permanent funds demonstrated the lowest volatility over the five-year period, with betas significantly less than 1, indicating lower correlation to broad market swings. The beta for the pension funds hovered around 1, indicating that investments generally follow market movements.

² An example of a risk free return is a 5-year treasury bond.

³ Beta = 1: portfolio moves with the market. Beta < 1: portfolio is less volatile than market. Beta > 1: portfolio is more volatile than the market.